Filing Date: Herewith

Title: SELECTIVE SPACER TO PREVENT METAL OXIDE FORMATION DURING POLYCIDE REOXIDATION

IN THE SPECIFICATION

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Dkt: 303.278US2

On page 1, after the title, please insert the following paragraph:

This application is a Divisional of U.S. application Serial No. 08/902,809, filed on July 30, 1997 which is incorporated herein.

The paragraph beginning at page 4, line 19 is amended as follows:

Figures 2A-2D show how this incubation time difference 130 can be exploited for selective spacer deposition, encapsulating refractory metal prior to polycide reoxidation. As shown in Figure 2A, the first step is patterning an electrode 205 into fine feature. In the embodiment shown in figure 2A electrode 205 comprises mitride polysilicon, a refractory metal, and a dielectric. Those skilled in the art will recognize, however, that other materials, such as undoped silicon, may be used to construct electrode 205. In the second step, represented in Figures 2B and 2C, a selective spacer 210 is deposited such that the amount deposited on the polysilicon and refractory metal of electrode 205 is less than the incubation thickness, leaving the active area oxide layer 215 free of deposition. In one embodiment the spacer comprises a thin silicon nitride, while in another it comprises an amorphous silicon film. It is to be noted that the foregoing examples are meant to be illustrative only and not limiting in any fashion.

The paragraph beginning at page 5, line 3 is amended as follows:

Once the spacer is deposited, the device undergoes polycide reoxidation <u>220</u>. Because the spacer is selectively deposited there is no need for an additional etch step to remove excess spacer material. The oxidation process forms smile 225, and active area oxide layer 215 and selective spacers 210 are reoxidized <u>220</u>. As can be seen, the metal portion of electrode 205 is protected by spacers 210 and thus is not subjected to the high temperature oxygen environment. Selective spacer 210 acts as a diffusion barrier preventing oxygen from reaching metal layers 205 205 of electrode 205. Subsequently, an additional spacer may be deposited to the desired spacer thickness of several hundred angstroms, setting the lateral dimension of the transistor's source/drain diffusion. As shown in Figure 2D, similar results are obtainable when electrode 205 comprises undoped silicon 211 with reoxidation 221.